



THOMAS L. GARTHWAITE, M.D.
Director and Chief Medical Officer

FRED LEAF
Chief Operating Officer

COUNTY OF LOS ANGELES
DEPARTMENT OF HEALTH SERVICES
313 N. Figueroa, Los Angeles, CA 90012
(213) 240-8101

BOARD OF SUPERVISORS

Gloria Molina
First District

Yvonne Brathwaite Burke
Second District

Zev Yaroslavsky
Third District

Don Knabe
Fourth District

Michael D. Antonovich
Fifth District

July 22, 2004

TO: Each Supervisor

FROM: Thomas L. Garthwaite, M.D.
Director and Chief Medical Officer

Jonathan E. Fielding, M.D., M.P.H.
Director of Public Health and Health Officer

SUBJECT: **UPDATE ON MRSA**

On February 11th, 2003, your Board asked the Department of Health Services to provide regular updates on methicillin-resistant *Staphylococcus aureus* (MRSA) in the County Jail. In June 2003, your Board asked us to investigate MRSA in the County Probation (Juvenile) facilities and report back to the Board. This is an update to our report of April 8, 2004.

MRSA at the Los Angeles County Jail

The total number of cases of MRSA skin infections identified during the first five months of 2004 is 1006, including 160 cases identified in January, 174 in February, 225 in March, 227 in April and 220 in May. At this time, cases identified within 5 days of admission to the Jail are presumed to be community-acquired and those identified more than 15 days are presumed to be acquired in the Jail. The percentage of infections identified ≥ 5 days after admittance to the Jail ranged from 53-60% in 2004; the percentage of infections identified < 5 days ranged from 18-24%. While the percentage of infections identified ≥ 5 days is decreasing, the total number of infections identified in ≥ 5 days is increasing. This may be due to the constant re-introduction of MRSA from the community into the Jail.

In December 2003, given the on-going outbreak of MRSA in the Jail, Public Health issued an official recommendation that a trial of chlorhexidine (a liquid antibacterial soap [LABS]) be used in the Jail based on its success in controlling MRSA outbreaks in another correctional facility and in healthcare facilities. Wards with stable inmate populations and moderate rates of infection were selected for the intervention (total population ~3,000). The goal was to decrease intra-Jail transmission. A sub-committee of the Joint Public Health-Jail MRSA Task Force developed the LABS protocol throughout the winter and it was implemented in March and April.

Public Health addressed medical professionals at the Jail about the intervention in February. Health education about LABS was given by Public Health and Sheriff Department staff to inmates (~3,000) and to other Sheriff Department staff (~1500) in both March and April. Flyers and posters were specifically designed about LABS and were distributed to inmates and posted in the selected wards.

During March 8-12, all new inmates received a shower with LABS when admitted to the Jail. Inmates in the selected wards received 4-oz bottles of LABS with instructions to shower for 5 days with the soap. Refills were made available. During April 5-9, a second 5 day pulse of LABS was deployed. Because of a lack of resources, LABS was not given to all new inmates upon admission to the Jail in April but a 4-oz bottle was given to inmates in the selected wards with instructions to use the soap for at least 5 successive showers. Refills were made available.

There was surveillance for side effects of LABS including before, during, and after the intervention. No increase in skin complaints or rashes secondary to the use of LABS was recorded in March or April.

Knowledge, attitude and practice (KAP) surveys were given to about 200 inmates before and after each intervention (total ~800 surveys in 2 months). The anonymous surveys, mostly multiple choice, covered self-reported hygiene practices, knowledge about MRSA, and access to Jail resources (laundry, showers, soap, education). In addition, 50 in-depth interviews with open-ended questions were conducted with inmates at the end of the April intervention.

Highlights from the survey reveal that the vast majority of men and women reported having access to daily showers but only 50-60% of the men and 80-88% of women reported showering daily. In open-ended interviews, the most common reasons for not taking daily showers included inmates saying that other inmates "have poor hygiene" and "some people are just lazy." Additionally, 82-93% of the men and 97-98% of women often or always use soap in a shower. Education by Public Health and Sheriff Department personnel was well received. More than half of the inmates directly received information about MRSA and LABS and more than half reported having sufficient knowledge to protect themselves against the organism. In general, both men and women reported having no trouble getting their questions answered about LABS.

Men and women varied in percentage reporting receiving LABS: 95-97% of the women and 64-82% of the men reported receiving the soap. However, >90% reported using LABS once they received it. The overall majority did not have a problem with the LABS and most took ≥ 5 showers with it as instructed. A minority of inmates reported problems (skin rash, dry skin) using LABS. This demonstrates a high level of acceptance and adherence to the protocol by the inmates.

Areas for the Jail to improve include increasing access to (regular) soap and laundry exchanges. By self report, 28-57% of the women and 31-53% of the men often or always have trouble getting regular soap in the Jail. Another significant finding is that male and female inmates report not regularly receiving laundry exchanges more than once a week. In March, 87-93% of the women and 2-8% of the men said they had laundry exchanges more than once a week (a laundry exchange usually includes a new jumpsuit, 2 new pairs of underwear, several pairs of socks, and new bedding). The percentages changed to 27-51% for women in April and 8-14% for men.

These findings were discussed at length at the Joint Public Health-Jail MRSA Task Force meetings on April 19th, May 25th, and June 16th, 2004 and in LABS sub-committee meetings. The Jail acknowledges that there were laundry delivery problems several weeks in April for women. Currently the Jail is developing quality control measures to assure adequate laundry exchanges for both men and women. Sheriff's personnel are also working on making soap more readily accessible to inmates.

Based on the number of infections during March-May in the LABS and non-LABS wards, there was no decrease in the number of MRSA infections that seem to be directly attributable to LABS. Therefore, we do not recommend expanding the LABS intervention to the entire Jail at this time. The high turnover of inmates, the relatively high percentage of inmates that enter the Jail with MRSA, and the work that needs to be done to fully implement Public Health's recommendations regarding increasing laundry changes, access to soap, education, etc., undercuts the efficacy of using LABS. As circumstances change, we will re-evaluate the use of LABS.

We would like to re-iterate our support for hiring a full-time public health physician and epidemiology support for the Jail. Controlling MRSA requires close monitoring of recommendations, continued education for staff and inmates, and oversight of medical and custody interventions. A public health physician could also address other issues in the Jail including hepatitis, scabies, STDs, and HIV, all of which have public health dimensions. On-site personnel are essential for control of these conditions.

MRSA in the Los Angeles County Probation Facilities

Thirty-seven cases of MRSA infections were reported from the Probation Facilities (Juveniles) from January-June, 2004. At this time it appears that about half the infections are acquired in the community and half may be acquired during incarceration. Given the ubiquitous nature of MRSA in the pediatric population in Los Angeles County, and in populations with crowded living facilities and shared equipment, it does not appear that there is a significant ongoing outbreak in the Probation Facilities that requires further Public Health intervention.

To avoid the transmission of MRSA, Probation Facilities should adhere to the Public Health recommendations sent last September. Public Health also recommends that the Medical staff at the Probation Facilities continue to maintain surveillance for MRSA infections to assure appropriate treatment for skin infections and to re-consult with Public Health should the number of infections increase to more than 20 per month.

MRSA in the Community

Staff from Public Health have finished environmental and prevention guidelines for MRSA. The availability of these guidelines will be distributed to schools, gyms, and other appropriate venues. The MRSA website is being updated. Staff from Public Health continue to give presentations to medical professionals and other lectures about MRSA locally and in national venues.

We will report back to you in 90 days. In the meantime, please contact either of us if you have any questions or need more information.

TG:JEF:eb
304:003

c: Chief Administrative Officer
County Counsel
Executive Officer, Board of Supervisors
Sheriff
Chief Probation Officer